

APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The specification is changed as follows:

Page 5, first full paragraph:

On the other hand, perfluorocarbons such as tetrafluoromethane and hexafluoroethane are used as an etching gas or a cleaning gas in semiconductor device production processes.

Regarding the production process for such a fluorocarbon, various methods are known, for example[.] , as shown below:

- (1) reaction of ethane with F_2 in a jet reactor to form tetrafluoromethane (hereinafter occasionally referred to as "FC-14" or " CF_4 "), or hexafluoroethane (hereinafter occasionally referred to as "FC-116" or " CF_3CF_3 ") with nitrogen gas used as the diluent gas (J.Am.Chem.Soc., 77, [3307] 3007 (1955); J.Am.Chem.Soc., 82, 5827 (1960));
- (2) fluorination of $C-H$ with F_2 in a reactor having a porous alumina tube (EP31519);
- (3) fluorination of a linear hydrocarbon with F_2 in the presence of a diluent gas in a reactor having a porous metal tube (double tube structure): SF_6 , CF_4 , C_2F_6 or C_3F_8 being used as the diluent gas (EP32210); and
- (4) reaction of a saturated or unsaturated hydrocarbon, or a partially fluorinated hydrocarbon with F_2 to produce a hydrofluorocarbon (USP5406008), or reaction of an alkene with carbon containing F_2 by adsorption to produce a fluorinated alkene (Japanese Patent Application Laid-Open No. 2-207052).